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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/640,551	08/13/2003	William J. McGann	IT-12	8366
1218	7590	05/31/2007		
CASELLA & HESPOS 274 MADISON AVENUE NEW YORK, NY 10016			EXAMINER SIEFKE, SAMUEL P	
			ART UNIT 1743	PAPER NUMBER
			MAIL DATE 05/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/640,551

Applicant(s)

MCGANN ET AL.

Examiner

Samuel P. Siefke

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 is/are allowed.
- 6) ☒ Claim(s) 6-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 6-10 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hering et al. (USPN 5,983,732) in view of Korotkikh et al. (USPN 6,559,094).

Hering teaches an integrated collection and vaporization particle chemistry monitoring device that comprises a test station to for receiving an object to be test (col. 1, lines 9-38), a metal trap (stainless steel) for receiving a flow of air from the testing station (col. 2, lines 52-60, col. 3, lines 6-13), a heater for heating the metal trap sufficiently to volatize material on the trap (col. 5, lines 1-7; col. 2, lines 52-60), an air pump for generating a flow of air across the trap (fig. 1, ref. 4; col. 4, lines 58-65), and a detector for receiving the flow of air across the trap and for testing whether the flow of air across the trap contains any of the particles of interest (fig. 1, ref. 7; col. 2, line 61- col. 3, line 26). The stainless steel trap (36) has a thickness of 0.0254 mm and is held to mounting posts(36) (fig. 3).

Hering does not teach a foamed trap having reticulated open cell structure and being formed from either aluminum alloy, copper foam metal and a specific density of 10-50% of aluminum alloy. Hering further does not specifically teach the metal trap being approximately 2mm.

Korotkikh teaches catalytic materials for selective oxidation that comprises foamed metal catalysts that made of copper, aluminum alloys and combinations and alloys thereof such as steel and stainless steel (col. 11, line 16- col. 12, line15). It is well known in the art that catalysts trap air contaminants and are heated to vaporize the trapped species. Therefore it would have been obvious to one of ordinary skill in the art

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to modify Hering to employ a foamed metal trap because of the flow through design, which enables particles to be trapped within the foamed metal trap instead of being impacted thereon. The design of Hering would not be altered except with the replacement of the metal impactor strip to the foamed metal trap which collects the chemical particles in the reticulated open cell structure provided. This is a well known and routinely employed feature in chemical traps. Regarding the change of material of the trap, it is well known in the art that the listed metals (copper, aluminum etc.) within Korotkikh are equivalents to stainless steel. Korotkikh specifically teaches a catalyst trap with a thickness of 2mm (col. 12, line 1). Regarding the metal trap having a selected aluminum alloy density ranging between 10-50%, it would have been obvious to one having an ordinary skill in the art to modify the modified Hering through routine experimentation to arrive at an optimal range of 10-50% aluminum alloy in the metal trap. Korotkikh teaches catalyst trap having a 6% density.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hering et al. (USPN 5,983,732) in view of Korotkikh et al. (USPN 6,559,094) and in further view of Jenkins (USPN 5,491,337).

The modified Hering can be seen above.

The modified Hering does not teach an ion trap mobility spectrometer for the detection of the vaporized chemical species.

Jenkins teaches an ion trap mobility spectrometer for detection of vaporized chemical species provided by a carrier gas (abstract). It would have been obvious to one having an ordinary skill in the art at the time of the invention to modify the modified

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Hering to employ an ion trap mobility spectrometer for detection of the vaporized chemical species because of its well known detection sensitivity and its reliable detection of chemical vapors.

Allowable Subject Matter

Claim 15 is allowed.

Response to Arguments

Applicant's arguments filed 3/5/07 have been fully considered but they are not persuasive. Applicant argues, "Korotkikh is not intended to function as a trap in the Korotkikh environment, but rather provide the surface area that receives the catalyst." In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

The Examiner provides Korotkikh to teach a metal foamed trap that would be suitable to be employed in Hering to trap the particles that are flowed there through instead of the particles being impacted thereon. This is a well known technique in the

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art that is routinely employed to capture more particles in a gas sample. Increasing the surface area for a trap obviously increases the potential amount of sample that would be trapped in or on the foamed trap. Further the Examiner maintains that the modified Hering structure would perform the intended use of the instant application claims.

Applicant refers to the instant application being intended to quickly heat and then quickly cool in order for the particles of interest to be trapped while the trap is cooled and even points to page 3 of the instant specification for reference. These limitations are drawn to method steps and are not even mentioned in the claims. The Examiner submits although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P. Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sam P. Siefke

May 25, 2007


Jill Warden
Supervisory Patent Examiner
Technology Center 1700